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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,734	11/21/2000	Mansour Tahernezehadi	CE08246R	6769
22917	7590	01/20/2004	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			TIEU, BINH KIEN	
			ART UNIT	PAPER NUMBER
			2643	
DATE MAILED: 01/20/2004				2

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/717,734

Applicant(s)

TAHERNEZHADI, MANSOUR

Examiner

BINH K. TIEU

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 11-15 is/are rejected.
- 7) ☒ Claim(s) 2,4-10 and 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Rasmusson (U.S. Pat. #: 5,475,731).

Regarding claim 1, Rasmusson teaches an echo canceller, as shown in figure 7, comprising:

A synthetic echo generator (i.e., FIR/IIR FILTER 750) that generates a synthetic echo signal (echo estimate electrical signal 714; col.6, lines 49-62) and a center clipper signal (i.e., clip signal levels 1140, 1150) from a reference signal (i.e., second digital electrical signal 712; col.6, lines 9-16);

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A difference function (i.e., summing junction 730) that generates an error signal (i.e., first digital electrical error signal 716) from a desired signal (i.e., first digital electrical signal 706; col.5, line 66 – col.6, line 7) formed from a near end signal that has been added to the reference signal (col.7, lines 14-33); and

A center clipper modifier function (i.e., center clipper 720), coupled to the synthetic echo generator and the difference function, that generates an improved center clipper (i.e., generating a modified electrical error signal 718) from the center clipper signal, the reference signal, the error signal, and the echo-cancelled signal (col.7, line 45 – col.8, line 25).

Regarding claim 3, note col.7, line 59 – col.8, line 20.

Regarding claim 11, note figures 1-3.

Regarding claim 12, note figures 6 and 7.

Regarding claim 13, note col.8, lines 3-20.

Regarding claim 14, Rasmusson teaches a method for echo cancellation comprising the steps of:

generating a synthetic echo signal (i.e., FIR/IIR FILTER 750 generating an echo estimate electrical signal 714; col.6, lines 49-62) and a center clipper signal (i.e., clip signal levels 1140, 1150) from a reference signal (i.e., second digital electrical signal 712; col.6, lines 9-16);

generating an error signal (i.e., summing junction 730 generating first digital electrical error signal 716) from a desired signal (i.e., first digital electrical signal 706; col.5, line 66 – col.6, line 7) formed from a near end signal that has been added to the reference signal (col.7, lines 14-33); and

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generating an improved center clipper (i.e., center clipper 720 generating a modified electrical error signal 718) from the center clipper signal, the reference signal, the error signal, and the echo cancelled signal (col.7, line 45 – col.8, line 25).

Regarding claim 15, note col.7, lines 6-23.

Allowable Subject Matter

3. Claims 2, 4-10 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hasegawa (U.S. Pat. #: 5,563,944) teaches an echo canceller with adaptive suppression of residual echo level.

Lindgren et al. (U.S. Pat. #: 6,597,787) teaches an echo cancellation device for canceling echoes in a transceiver unit.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (703) 305-3963 and E-mail address: BINH.TIEU@USPTO.GOV.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (703) 305-4708 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.**

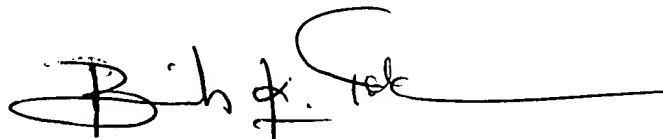
Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist, tel. No. 703-305-4700).

A handwritten signature in black ink, appearing to read 'Binh K. Tieu', with a long horizontal flourish extending to the right.

**BINH TIEU
PRIMARY EXAMINER**

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Date: January 09, 2004